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Factors associated with pupil attitudes toward three food service occupations

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FACTORS ASSOCIATED WITH PUPIL ATTITUDES TOWARD THREE FOOD SERVICE OCCUPATIONS

by

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INTRODUCTION

Two major trends have appeared recently in the world of work. First, technology and automation have and are continuing to change the type of work available for those entering the labor force. Many old jobs have disappeared and new ones are rapidly being created. The new jobs tend to involve more cognitive and less manual ability. As business and industry look for employees with higher levels of skill and education, the demands in the labor force for the unskilled or untrained worker decrease. Second, the work force is changing. Workers are more mobile and are more frequently employed in urban centers. The number seeking entry into the labor force has increased. Many of these have dropped out of high school or are terminal high school graduates who have had little or no occupational training. Women are entering the labor force in greater numbers and they, too, are frequently handicapped by lack of training or by outdated training.

These trends have contributed to the gap between the educational qualifications of the labor force and the educational requirements of the job market. In spite of the increased number seeking work, there continues to be a shortage of qualified personnel in many occupations. The provision of the kind of education that will adequately bridge the gap between man and his work has been identified as one of

the most pertinent problems facing vocational education at the present time (18).

Vocational Orientation of Home Economics

Home economics has been recognized as an area of vocational education since the passage of the Smith-Hughes Act in 1917. This act was the result of a comprehensive study undertaken by the Commission on National Aid to Vocational Education. In their recommendations to Congress, the Commission recognized the need for

> "that kind of practical education which the commission feels has been largely neglected up to the present time, and which most urgently needs encouragement, namely, that which prepares boys and girls for useful employment." (16, p. 26)

The Commission believed the kind of vocational education needed at that time should be

> "designed to prepare workers for the more common occupations in which the great mass of our people find useful employment." (16, p. 27)

In the field of home economics, the Commission noted the need to prepare persons for specific occupations such as dietitian, cook and housemaid, institution manager, and household decorator as well as to prepare generally for the vocation of homemaking. Between 1917 and 1961, federal legislation expanded the vocational programs to be funded and provided additional funds for their operation. The focus of home economics throughout this period was on preparation for the vocation of homemaking.

The need to review and evaluate vocational education legislation was recognized by President John F. Kennedy in 1961. He believed that the sound and sufficiently broad basic purpose of the vocational education program could provide a basis for meeting future needs, but that technological changes which were occurring in many occupations indicated the desirability of modernization of vocational legislation (20, p. v). A panel of consultants on vocational education was appointed to study the current vocational education program. Many of their recommendations were incorporated in the Vocational Education Act of 1963. In it, vocational education is broadly defined as any vocational training or retraining which is

> "given in schools or classes under public supervision and control, or under contract with a State board of vocational education or a local education agency, and . . . conducted as a part of a program to fit persons for gainful employment. This program may be any one of those programs which under earlier vocational education acts is eligible for Federal assistance. And the term "gainful employment" is not limited to any level in any field; it means employment to either a semiskilled or a skilled worker, or as a technician, in a recognized occupation." (17, p. 408)

Persons eligible for this type of education include those attending high school, those who have completed or left high school and are free to study full time for job preparation, those already in the labor market but needing training or retraining, and those whose academic, socio-economic, or other handicaps prevent them from succeeding in other voca-

tional education programs.

Two provisions of this act are of major importance to home economics education. One requires that at least 10 per cent of the vocational home economics funds provided in earlier acts be used for the purposes of training for gainful employment in occupations involving knowledge and skills of home economics. The other reserves 10 per cent of the funds appropriated under the new act for grants for research, experimental, and developmental programs (17).

These provisions are challenging home economics personnel to give more attention to education for gainful employment and to cooperate with those in business and industry to develop meaningful occupational programs.

Manpower and Educational Needs of the Food Service Industry

Food service is one of the occupations which uses home economics skills and knowledge. It is an expanding industry with a continuing and increasing shortage of qualified personnel. According to the executive vice-president of the National Restaurant Association, public, private, and government food service institutions can provide employment for an additional 75,000 to 100,000 persons in new positions each year through 1970. As well, approximately 150,000 replacement positions each year are envisioned (12, p. 4-5).

In Iowa a state-wide survey was made of food service

operations in restaurants, hospitals, and nursing homes in April and May, 1966, by Bobeng (2a), Jolin (7b), and Aimone (1a) respectively. These operations were sampled according to a plan designed by the Iowa State University Statistical Laboratory. Data concerning employment in these food service establishments were gathered by means of personal interview.

The managers of 392 restaurants which had at least 50 per cent of their gross income from the sale of food were interviewed. There were 37,934 full-time and part time employees, 82.2 per cent of whom were non-supervisory personnel. Of the 17,918 full-time non-supervisory personnel, 40 per cent were waiters or waitresses; 22.8 per cent were assistant cooks, head cooks, or short order cooks; and 6.1 per cent were bakers and kitchen helpers. Almost 75 per cent of these employees were female. Part time non-supervisory personnel was made up of 46.7 per cent waiters or waitresses, 12.1 per cent cooks, and 5.2 per cent bakers and kitchen helpers. Slightly over two-thirds of these were female. Each manager was asked the number of employees he expected to employ in one year. On the average the number of full-time employees in restaurants was expected to remain constant but a net increase of 349 part time employees was anticipated.

Jolin collected data about 75 Iowa hospitals and found 4,179 persons employed in hospital food service operations,

88.3 per cent of whom were non-supervisory personnel. Of the 2,200 full-time non-supervisory personnel, 23.4 per cent were assistant cooks, head cooks, and short order cooks; 20.8 per cent were kitchen helpers and bakers; and 19.0 per cent were waiters, waitresses, and tray girls and boys. In addition there were 1,492 part time non-supervisory employees, of whom 9.5 per cent were cooks, 19.5 per cent bakers and kitchen helpers, and 23.8 per cent waiters, waitresses, and tray girls and boys. About 76 per cent of the full-time and 59 per cent of the part time non-supervisory personnel were female. Managers indicated that a net increase of 72 full-time employees but a net decrease of 37 part time employees was expected.

Similar data were collected concerning 65 nursing homes in Iowa during the same interview period. Aimone found that there were 2,393 employees in the food service operations of nursing homes. About 78 per cent of them were non-supervisory personnel. Of these 838 were full-time; 65.6 per cent assistant cooks, head cooks, or short order cooks, 15.2 per cent kitchen helpers, and 4.1 per cent tray girls. Of the 1,045 part time employees 31.4 per cent were assistant cooks, head cooks, or short order cooks; 23.0 per cent were kitchen helpers; and 29.5 per cent tray girls or waitresses. Females accounted for 96 per cent of the full-time and slightly more than 98 per cent of the part time non-supervisory personnel. Managers anticipated a new increase of 28 full-time employees

and a decrease of 5 part time employees in nursing home food service departments. This suggests that the greatest need for new employees is in the jobs of waiter, waitress, and cook.

In spite of the number of opportunities available, however, these jobs are not widely chosen by persons entering or re-entering the labor force. A high rate of employee turnover indicates that many of those who chose food service jobs do not stay in them. Reasons for this lack of interest in food service employment are of concern both to the industry and to vocational educators.

Food service institutions must also cope with changing manpower requirements in their industry. Changes brought about by automation and technological advances have tended to eliminate the unskilled and untrained jobs and to create a demand for employees who have new skills as well as higher levels of skill.

The need for new and expanded programs of vocational education for food service has been recognized by members of the industry. Many employers believe that some knowledge of the equipment and materials, general procedures, and vocabulary is an asset (13). Although existing courses have made a contribution, these have generally been insufficient in number and handicapped by inadequate facilities, scarcity of qualified instructors, under financing, and lack of satisfactory textbooks, other teaching materials, and means of evaluation.

The passage of the Vocational Education Act of 1963 has given impetus to vocational education programs in food service. Vocational educators and food service industry personnel are cooperating to help solve problems relating to the manpower requirements of this growing industry and its new educational needs.

The Problem

This research effort is part of a larger project, Bases for Vocational Education for Food Service Industry Employees, being conducted jointly by the Departments of Institution Management and Home Economics Education at Iowa State University and funded by the U.S. Office of Education. For this project, five major purposes were delineated:

1. Ascertain the advantages and disadvantages believed to exist in employment in the food service industry by those presently employed and by other groups.

2. Determine, in selected types of institution food service, conditions of employment for workers, work requirements of specific jobs, and need for food service workers.

3. Develop means of forecasting the effects of change in the work situations on work requirements and qualifications of workers.

4. Develop programs of vocational education to determine the appropriateness or programs for different groups of present or potential food service employees.

5. Explore methods of helping food service managers recognize the economic worth of workers and first-line supervisors who have participated in vocational education, and make best use of these individuals.

The present study is related to the first purpose and involves the development of instruments which would assess attitudes toward employment in the food service industry. These attitude inventories may serve several purposes. They could be used in the vocational guidance of persons who might well consider training and employment in this industry, in identifying the attitudes of trainees which may need to be changed, and in assessing changes which occur in attitudes as a result of training. In addition, an analysis of responses to them could assist food service industry employers and supervisors in determining the aspects of the jobs which need to be changed so that food service jobs would become more attractive. Since the majority of the non-supervisory food service labor force is made up of waiters, waitresses, and cooks, it was decided to develop attitude inventories for these three jobs.

In addition an investigation was made of factors associated with the attitudes of high school boys and girls toward these jobs. It was hypothesized that the factors of grade in school, place of residence, intellectual ability, socio-economic status, work experience, and level of job aspiration were related to attitudes. Any such relationships might indicate the type of student who would be interested in these jobs and hence, could be encouraged to enter training programs.

Attitude has been defined by Edwards (3, p. 2) as "the degree of positive or negative affect associated with some psychological object." This definition was accepted for use in this study. In it the psychological objects considered are the jobs of waiter, waitress, and cook. While attitudes may be inferred from observation of behavior or obtained by direct questioning of subjects, the use of attitude inventories provides a more objective measure which has a greater degree of refinement than the other methods.

Related Literature

A search of the literature indicated little research concerning attitudes toward food service occupations; therefore this review will also include research related to attitudes toward work and to employment opportunities and educational programs for food service workers.

Attitudes

Research on attitudes has been conducted in two ways: attitudes toward home economics related jobs and attitudes toward work.

The attitudes of high school girls toward certain home economics related jobs were explored in two studies. The post high school activities of 320 girls in Ohio who had been enrolled for four years in high school home economics classes and their attitudes toward 13 home economics related occupations were reported by Fentress (4). Questionnaires

were used to collect data related to three purposes: 1) to identify the jobs in which girls were presently employed and how satisfied they were with these jobs; 2) to determine their acceptance of the 13 jobs; and 3) to explore the relationships between this acceptance and the factors of intellectual level, aspired occupational level, work-values, degree of training perceived as being required for the jobs, actual employment in them, satisfaction with her job at the time of the survey, and the educational and occupational levels of the parents.

More than one-third of the girls were engaged in home economics related jobs and the majority was satisfied with them. The acceptance of the 13 occupations by all subjects in the study was determined by weighting the two ends of the scale thusly: 1 indicated that the girl "would like the job very much" and 5 that she "would not take the job under any circumstances." Mean acceptance ratings were computed for each job and for the jobs as a group. The highest mean rating for any one job was 1.83 and the lowest, 3.75, whereas the mean acceptance rating for the group was 3.02. A t-test of the significance of differences among means indicated that, for the two food service jobs in the study, the job of waitress was significantly more acceptable than that of short order cook. The girls tended to feel more favorable

toward a job if they had had experience in it or in a similar one.

In the second study, Loftis (11) surveyed ninth- and twelfth-grade girls in South Carolina to determine their attitudes toward home economics related jobs. The sample consisted of 929 home economics and non-home economics students in seven selected public high schools. Data were collected by an instrument which to some extent involved attitudes. In the inventory, My Future Plans, 49 home economics related jobs were listed and the subjects were requested to check one of the following responses: I would be eager to do this job; I would be willing to do this job; I would prefer not to do this job; This job is unknown to me; and I would be interested in learning how to do this job. These categories were weighted from 5 to 1 respectively. The appeal of each job was determined by calculating the frequencies of response in each category and multiplying this by the assigned value. The jobs were ranked in appeal and quartiles were determined to identify those which seemed most and least appealing to the subjects. Three food service jobs, helper in a hospital employees' cafeteria and dining room, waitress, and lunchroom helper, ranked below the first quartile; a fourth, supervised food service helper, ranked

below the second quartile. Jobs which appeared to have the greatest appeal to the students were those which involved child care and health and medical services.

Rank order correlations between the ranks obtained from all students and from subgroups based on classification as home economics or non-home economics students, on grade level, and on social class indicated that students were quite consistent in their attitudes toward specific jobs. In every instance, the obtained coefficients were greater than .94.

Attitudes toward work were also explored in one study. Jacoby (6) developed an Attitudes Toward Work Scale containing items related to the adequacy of academic preparation, supervision and supervisors, peers, choosing a job, rights and responsibilities of employees, inner satisfactions of working, and expectations of future advancement. A test-retest reliability check was made by administering the scale to one-third of the sample after an interval of two weeks; a coefficient of stability of .72 was obtained. After an interval of three months, the scale was administered to the remaining two-thirds of the sample to determine changes in attitude over a longer period of time. When the mean scores were compared, there was no statistically significant difference.

Employment opportunities

The extent and characteristics of local or state job opportunities in food service have been explored in two studies.

Rossi (15) interviewed managers of commercial and non-commercial food service institutions in Santa Monica, California, and found that four specific occupations which use home economics related skills are available to high school students: food preparation, waitress, food server, and hostess-cashiers. Most of the managers believed that training programs were needed, and 72 per cent indicated that they would hire the trainees of such programs.

The employment opportunities for women in service occupations were investigated by Latham (10). Questionnaires were mailed to the managers of Employment Security Agencies in 25 cities in Idaho. Managers were asked to estimate the number of job requests they received per month for each of nine groups of home economics related occupations. The most frequently reported request was for a supervised food service worker. For the state as a whole, an average of 7.4 requests were received each month for this type of worker. Managers also ranked the service occupations in the order of their importance to the community. The three highest ranking were supervised food service worker, companion to the elderly, and hotel-motel housekeeping aide. All but three managers indicated that they would encourage persons on their employment lists to participate in a vocational training program if one were available.

Educational programs

Research on educational programs for food service has been concerned with the nature of class, laboratory, and work experiences; the content of courses; and the development of experimental programs.

Food service programs offered at the high school level in 21 states and the District of Columbia were investigated by Kupsinel (9). Questionnaires sent to instructors revealed that the typical food service program consisted of one course with one instructor for both laboratory and non-laboratory experiences. The two most common titles were Commercial Food Trades and Commercial Food Service.

The possibility of coordination of high school food service educational programs with the school lunch program was explored by Mullan (14). Three alternative plans were developed and submitted to a panel representing school lunch management, home economics education, school administration, and institution management. Plan I was a one semester full-time program for seniors. Plan II involved a program providing two class periods per day for two semesters for juniors and seniors, with food preparation laboratories the first semester and supervised work experience in the school lunch program the second semester. Plan III consisted on a two-year program in which juniors spend two class periods per day for two semesters in food preparation and seniors spend

two semesters in supervised food service work, expanding from two class periods per day during the first semester to four class periods per day during the second semester. Plan I was not considered by the panel to be satisfactory for high school programs; both Plan II and Plan III were considered suitable.

Panel members also responded to a questionnaire concerning food service programs for high school pupils. The concensus of the panel was that the school lunch program would provide a more effective educational work experience than would other food service operations in the community. Recommendations for an adequate supervised work experience included conference space for consultation, space for changing into uniforms, space to observe and participate in production, and wages paid during the experience following the pupil's orientation to the job.

Two studies explored the content in courses for food service educational programs. Instructors in the Kupsinel survey (9) judged that the areas of cookery principles, sanitation, nutrition, safety, management, serving food, and personal qualities were all necessary content in these programs. Responses to the questionnaires to former trainees of these programs indicated that they considered their training an asset in obtaining and keeping jobs, but they desired more training to improve their work and to advance in the

field. Trainees believed additional information was needed in management, cookery principles, and nutrition.

The managers of food service institutions interviewed by Rossi (15) in Santa Monica, California recommended that the topics of sanitation in food handling, food preparation, personal appearance, computation of bills, and making change be included in training programs.

Two experimental programs to facilitate employment in food service have been reported. One was conducted by Johnson (7a) in Rockford, Illinois. Both class instruction and on-the-job experience were used and involved the development of attitudes, traits, skills, and knowledge for food service employment. Fifteen girls were enrolled in the course which met for one hour per day for one semester. During the last nine weeks, the girls also participate in supervised work experience in a food service establishment.

Periodic evaluations by employers provided evidence that the girls had favorable attitudes toward criticism and work; were satisfactory in characteristics such as cooperation, initiative, and reliability; and were able to perform satisfactorily on the job. Scores on a pre-post test indicated growth in knowledge of general employment practices and of food service employment. The girls were enthusiastic about the program and reported a gain in self-confidence. They also indicated a recognition of the value of the learn-

ing experiences for successful employment. The consensus among pupils and staff was that the time allotted was insufficient to complete adequately the content planned for the course.

A second program, conducted in Ithaca, New York, was evaluated by Jacoby (6). Course work included three major areas: orientation to the world of work, investigation of food service jobs, and management. Two types of work experience were given: regular part-time employment and limited jobs as waitresses or caterers for school, community, and private affairs. Eight senior and six junior girls were enrolled, most of whom had had little work experience but all had studied home economics.

In addition to the Attitudes Toward Work Scale described earlier, instruments to measure motivation for enrollment, qualities aiding employability, and attitudes toward the course were developed. Time limited the follow-up required to determine the success of the course in terms of the attainment of a better job than would have been attained without training; therefore, an index of success was devised by ranking pupils according to their scores on the four instruments and a final achievement test. Significant positive relationships were found between this index and IQ, academic rank in class, and the total amount of work experience. Pupils believed that the course had been beneficial and endorsed the supervised work experience.

DEVELOPMENT OF THE ATTITUDE INVENTORIES

The first objective of this research project was to develop instruments for use in determining attitudes toward the food service jobs of waiter, waitress, and cook. It was intended that these instruments would be suitable for use with both youth and adults and with those employed or not employed in food service jobs.

Development of Preliminary Inventories

The initial step in the development of an attitude inventory is the collection of a pool of statements that relate to the psychological object to be studied. Statements concerning the food service jobs of waiter, waitress, and cook were collected by means of interviews, questionnaires, and a survey of attitude inventories. Since attitudes toward each job were to be considered separately, three pools of statements were collected.

Open-ended interview schedules were developed and used as guides in interviewing persons employed and those not employed in the food service industry. Food service workers were represented by waitresses, cooks, managers or owners, and college instructors who had had experience in food service establishments. The 22 interviewees who were currently employed as waitresses and cooks were asked questions such as: "Why did you take a job as a waitress or a cook?" "What

do you like about this job?" "How does your husband, wife, parents, or children feel about this job?" "Why do you feel your job is important?" Five staff members of the Iowa State University Department of Institution Management and seven managers or owners of food service establishments were asked to identify the attitudes of employees which contributed to or interfered with satisfactory performance.

Both youth and adults were selected to represent those not employed in food service jobs. Five men and women who were employed in occupations other than food service and ten adult residents of the Ames community were asked questions such as: "Would you ever take a job as a waiter, waitress, or cook?" "Why or why not?" "Would you like for your son or daughter to be a waiter, waitress, or cook?" "Why or why not?" Since trainees at a local school of cosmetology had recently made their vocational choice, eight were asked: "Why did you choose this vocation?" "Did you consider any other occupation, such as food service occupations?" "Why or why not?" "If you did take a food service job sometime, would you rather be a waitress or a cook?" An instructor in this school was also asked similar questions.

The interviewer requested permission to record comments during the interview and this permission was granted in every instance. Since names of interviewees were not requested, persons who volunteered their names during the

interview were told that their identity would not be disclosed in the study. When interviews ceased to provide new attitudinal statements, they were discontinued. Copies of the interview schedules are included in Appendix A.

Open-ended questionnaires were developed to elicit statements about food service jobs from high school boys and girls. These contained a series of 16 pairs of jobs including food service as well as non-food service jobs. The pupil was asked to identify the one job in each pair which he would most like to do and to complete a sentence in his own words telling why he preferred that job. For the remaining job in each pair, he was directed to complete a sentence telling why he did not prefer it. Boys were asked to respond to job pairs such as waiter - taxi driver; bookkeeper - insurance agent; and meat packer - cook in a cafeteria. Girls responded to pairs such as waitress - maid in a motel and salesperson in a store - cook in a restaurant.

These questionnaires were pretested on 10 boys and girls in the Ames High School to determine if they would obtain the desired type of response and if the directions and items were clearly understood. The teacher administering them was requested to record the amount of time used by the pupils and to make suggestions for improvement of the instruments.

After minor revisions, the questionnaires were administered to 26 girls and 34 boys in a guidance class at the United Community High School, Boone, Iowa. Copies of these instruments are found in Appendix A.

Since no inventories were available which involved food service jobs, several attitude inventories with other psychological objects were analyzed for ideas which might be adapted to food service inventories.

When the pools of statements for the three jobs had been collected, criteria recommended by Edwards (3) were used to evaluate and edit them. Following his suggestions, those statements were discarded which were ambiguous, duplications, or not attitudinal in nature. Those remaining were edited using these criteria:

1. Avoid statements that refer to the past rather than to the present.
2. Avoid statements that are factual or capable of being interpreted as factual.
3. Avoid statements that may be interpreted in more than one way.
4. Avoid statements that are irrelevant to the psychological object under consideration.
5. Avoid statements that are likely to be endorsed by almost everyone or by almost no one.
6. Select statements that are believed to cover the entire range of the affective scale of interest.
7. Keep the language of the statements simple, clear, and direct.

8. Statements should be short, rarely exceeding 20 words.

9. Each statement should contain only one complete thought.

10. Statements containing universals such as all, always, none, and never often introduce ambiguity and should be avoided.

11. Words such as only, just, merely, and others of a similar nature should be used with care and moderation in writing statements.

12. Whenever possible, statements should be in the form of simple sentences rather than in the form of compound or complex sentences.

13. Avoid the use of words that may not be understood by those who are to be given the completed scale.

14. Avoid the use of double negatives.

(3, pp. 13-14)

Three preliminary inventories were developed from the statements: Attitude Toward Being a Waiter, Attitude Toward Being a Waitress, and Attitude Toward Commercial Cooking. The Likert method of response was selected as being both appropriate and easy to administer and interpret. In this method, the subject is directed to use one of five response categories: strongly agree, agree, undecided, disagree, and strongly disagree. A key for each inventory was derived by logically classifying each statement as either favorable or unfavorable. These keys were verified by a member of the Home Economics Education staff and a specialist in attitude scaling techniques.

Selection of Discriminating Items

In order to select the items which discriminate between persons with favorable and those with unfavorable attitudes, the inventories were administered to three groups in Story County, Iowa: 1) 25 high school junior and senior boys, 2) 25 high school junior and senior girls, and 3) 25 women employed full-time as cooks and waitresses. It had been planned to administer them to men employed full-time as cooks or waiters; however, employees meeting this requirement were unavailable in Story County. Men in these jobs in Des Moines were unavailable in sufficient numbers for the study. A few were found but were unwilling to cooperate. All groups responded to Attitude Toward Commercial Cooking; female subjects responded to Attitude Toward Being a Waitress, and male to Attitude Toward Being a Waiter.

The inventories were administered to the 50 high school juniors and seniors in Story City, Iowa, during school hours by the school guidance counselor. To obtain the responses of women employed full-time in food service establishments, the investigator contacted the managers or owners to explain the study and to request permission to administer the inventories to their employees. After this request was granted, the investigator explained to him the procedures for completing the inventories and for returning them. Since all managers requested that the inventories be completed at

some time other than work hours, copies of the inventories and self-addressed stamped envelopes for return were left with them. They were asked not to coerce employees to participate in the study. Employees were requested to complete the inventories on their own time and not to sign their names. They were given the option of returning their completed inventories to the manager or to the investigator. All those who met the qualification of full-time employment and agreed to participate returned their completed inventories.

The Likert technique described in Edwards (3) uses a form of item analysis as a basis for selecting items which discriminate between persons with favorable and with unfavorable attitudes. For this analysis, the responses were divided into six units according to responding group and to inventory: 1) Girls - Waitress inventory; 2) Girls - Cook inventory; 3) Boys - Waiter inventory; 4) Boys - Cook inventory; 5) Women - Waitress inventory; and 6) Women - Cook inventory. In scoring the responses, each item favoring the job was weighted as follows: strongly agree, 5; agree, 4; undecided, 3; disagree, 2; and strongly disagree, 1. These were reversed for the unfavorable items. A total score was obtained for each subject by summating his responses to the items on the inventory.

In each unit, the scores were ranked and two criterion groups were selected using the highest one-third and the

lowest one-third of the scores. Means and standard deviations were computed for every item in each unit. Differences between the means of the criterion groups were calculated and are presented in Tables 1, 2, and 3.

Two criteria were employed in the selection of items to be retained in the inventories. It was expected that for positive items, the means of the high criterion group would be greater than those of the low criterion group; for negative items, the reverse would be true. When the differences between means were not in the expected direction, the items were not considered to be valid and were dropped from further consideration. Three items were dropped from Attitude Toward Being a Waiter; five items from Attitude Toward Being a Waitress; and nine from Attitude Toward Commercial Cooking. The differences for these items are not reported in the Tables. The t-test was applied to the remaining items to indicate the extent to which a statement differentiated between the high and low groups. To provide a minimum number of discriminating items in each inventory, those were retained which had a t-value of at least .500 in each unit to which it had been administered.

The number of items remaining in the inventories are 23 in Attitude Toward Commercial Cooking, 25 in Attitude Toward Being a Waitress, and 27 in Attitude Toward Being a Waiter. In each inventory, there are approximately equal

Table 1. Differences between means of criterion groups of boys for the inventory Attitude Toward Being a Waiter

	Items	Differences
1.	As a waiter, I feel I would be doing something worthwhile.[b]	.361
2.	Being a waiter would be all right if I couldn't find any other job.	.194
3.	I have always wanted to be a waiter.[b]	.667
4.	Being a waiter would be drudgery.[b]	.389
5.	I wouldn't be a waiter under any circumstances.	.139
6.	Being a waiter requires less education than most occupations.[b]	1.167
7.	Being a waiter would be an interesting job.[b]	1.819
8.	Being a waiter is monotonous.[b]	1.222
9.	Waiters are skilled persons.[b]	.986
10.	I would be willing to let my son be a waiter.[b]	.708
11.	All waiters should be required to have special training.[b]	.917
12.	I like to work with people.[b]	.736
13.	Waiters are paid well considering the amount of education they have.	-[a]
14.	A job as a waiter is a dead-end job.	-[a]
15.	This is a good job for young people who want to get ahead.[b]	.583

[a]In Tables 1, 2, and 3 differences between groups are omitted when they are not in the expected direction.

[b]Items retained in inventory.

Table 1 (Continued)

	Items	Differences
16.	You need a strong back and a weak mind to be a waiter.[b]	.611
17.	A waiter is the most important employee in the restaurant.	-[a]
18.	I could get along on a waiter's salary.[b]	.722
19.	Being a waiter is a desirable job.[b]	1.291
20.	I wouldn't like working on holidays when everyone else is relaxing.[b]	1.069
21.	Anyone can be a waiter.[b]	.764
22.	Waiters have to work longer and harder than people in most other jobs.	.153
23.	Work as a waiter is too hard.	.111
24.	I would enjoy serving food to people.[b]	.750
25.	A waiter gets ordered around by too many people.[b]	.736
26.	Waiters are public servants.	.278
27.	A waiter gets to meet many interesting people.[b]	.486
28.	Waiting tables isn't a man's job.[b]	1.653
29.	I wouldn't like a job which has broken work hours.[b]	1.097
30.	Table waiting is degrading work.[b]	.528
31.	Waiters are just as good as anybody else.	.028

Table 1 (Continued)

	Items	Differences
32.	Jobs as waiters are good for someone who wants to get ahead.[b]	.333
33.	Customers think they are better than waiters.[b]	.778
34.	You can't be a man and a waiter too.[b]	.597
35.	I would enjoy the variety of activity in being a waiter.[b]	1.569
36.	Being a good waiter is an art.[b]	.694

Table 2. Differences between means of criterion groups of girls and women for the inventory Attitude Toward Being a Waitress

	Items	Differences Girls[c]	Women[c]
1.	As a waitress, I feel I would be doing something worthwhile.[b]	1.208	1.125
2.	Being a waitress would be all right if I couldn't find any other job.	_[a]	_[a]
3.	I have always wanted to be a waitress.[b]	.944	1.125
4.	Waitress work is drudgery.[b]	1.056	1.000
5.	I wouldn't be a waitress under any circumstances.[b]	.931	1.250
6.	Being a waitress requires less education than most occupations.[b]	.472	1.750
7.	Being a waitress would be an interesting job.[b]	1.222	.875
8.	Waitress work is monotonous.[b]	.458	1.250
9.	Waitresses are skilled persons.[b]	1.278	1.625
10.	I would be willing to let my daughter be a waitress.[b]	.597	1.375
11.	All waitresses should be required to have special training.[b]	.444	1.125
12.	I like to work with people.[b]	.389	.500
13.	Waitresses are well paid considering the amount of education they have.	_[a]	_[a]
14.	Waitress jobs are dead-end jobs.[b]	1.528	1.375

[c]In Tables 2 and 3, t-values were determined for the differences in each unit separately.

Table 2 (Continued)

	Items	Differences Girls[c]	Differences Women[c]
15.	This is a good job for young people who want to get ahead.[b]	1.111	1.125
16.	You need a strong back and a weak mind to be a waitress.[b]	.361	.875
17.	A waitress is the most important employee in the restaurant.	_[a]	_[a]
18.	I could get along on a waitress's salary.[b]	.250	.375
19.	Being a waitress is a desirable job.[b]	1.222	1.250
20.	I wouldn't like working on holidays when everyone else is relaxing.[b]	.708	.125
21.	Anyone can be a waitress.[b]	.222	.500
22.	Waitresses have to work longer and harder than people in most other jobs.	.625	.125
23.	Waitress work is too hard.	.764	.750
24.	I would enjoy serving food to people.[b]	1.319	.250
25.	A waitress gets ordered around by too many people.[b]	.153	.750
26.	Waitresses are public servants.	.764	.875
27.	A waitress gets to meet many interesting people.[b]	.486	1.125

Table 2 (Continued)

	Items	Differences Girls[c]	Women[c]
28.	Waitresses don't have very good morals.[b]	.403	.750
29.	I wouldn't like a job which has broken work hours.[b]	_[a]	_[a]
30.	Table waiting is degrading work.[b]	.208	.625
31.	Waitresses are just as good as anybody else.	.847	.625
32.	Waitress jobs are good for someone who wants to get ahead.[b]	.653	1.500
33.	Customers think they are better than waitresses.[b]	_[a]	_[a]
34.	I would enjoy the variety of activity in being a waitress.[b]	.917	1.000
35.	Being a good waitress is an art.[b]	.681	.875

Table 3. Differences between means of criterion groups of boys, girls, and women for the inventory Attitude Toward Commercial Cooking

	Items	Differences Boys[c]	Girls[b]	Women[c]
1.	As a cook, I feel I would be doing something worthwhile.[b]	.875	1.125	1.250
2.	Cooking would be all right if I couldn't find any other job.	-[a]	-[a]	1.625
3.	Cooking is drudgery.[b]	1.500	1.569	1.375
4.	I have always wanted to be a cook.[b]	1.125	1.278	1.375
5.	I wouldn't be a cook under any circumstances.[b]	1.500	1.833	1.375
6.	Cooking is monotonous work.[b]	1.750	1.611	.500
7.	Cooking requires less education than most other occupations.[b]	.500	1.042	1.250
8.	Cooks are skilled persons.[b]	.750	.736	1.500
9.	All cooks should be required to have special training.[b]	-[a]	-[a]	1.125
10.	I would rather work with things than people.	-[a]	.222	.750
11.	Cooks don't get to work in nice surroundings.[b]	1.125	.403	.625
12.	I would enjoy preparing food to please other people.[b]	1.250	1.000	1.125
13.	Being a cook would be an interesting job.[b]	1.875	2.000	1.125

Table 3 (Continued)

	Items	Differences Boys[c]	Girls[b]	Women[c]
14.	I wouldn't like working in a hot kitchen.[b]	2.125	1.056	.500
15.	I would be willing to let my son or daughter be a cook.[b]	1.000	1.153	.625
16.	Cooks are well paid considering the amount of education they have.	.875	.125	-[a]
17.	A cook has to please too many people.	.125	.194	1.125
18.	This is a dead-end job.	-[a]	1.000	.750
19.	A cook's pay isn't good enough to support a family.[b]	1.000	1.278	.875
20.	Cooks don't have to be responsible to anyone but the boss.	.250	-[a]	-[a]
21.	Cooking would be a very desirable occupation.[b]	1.625	1.236	1.375
22.	You need a strong back and a weak mind to do this job.[b]	.500	.931	.500
23.	Cooks don't get to meet many interesting people.[b]	.750	.931	.875
24.	This is a good occupation for young people who want to get ahead.[b]	1.315	1.111	1.000
25.	A cook does not have to deal with different people all of the time.	-[a]	-[a]	.375

Table 3 (Continued)

	Items	Differences Boys[c]	Girls[b]	Women[c]
26.	A cook is the most important employee in the restaurant.[b]	.500	.389	.250
27.	Cooking is too routine.[b]	1.000	1.722	1.250
28.	I could get along on a cook's salary.[b]	.750	.569	.125
29.	I would not like working on holidays when everyone else is relaxing.[b]	1.125	.722	.875
30.	Cooks have to work longer and harder than people in most other jobs.	.250	-[a]	.250
31.	Cooking is a satisfying job.[b]	1.250	1.389	1.375
32.	There is too much pressure on a cook to get things done on time.[b]	.250	.625	.750
33.	Anyone can be a cook.	.500	-[a]	.500
34.	This kind of work is too hard.	.125	.375	.875
35.	Great skill is required to be a cook.[b]	1.000	.528	1.250

numbers of favorable and unfavorable statements.

Copies of the inventories are included in Appendix B.

RELATIONSHIP OF CERTAIN FACTORS TO ATTITUDES TOWARD FOOD SERVICE JOBS

The second objective of this research project was to determine the relationship of certain factors to attitudes toward the food service jobs of waiter, waitress, and cook. It was hypothesized that the factors of 1) grade in school, 2) place of residence, 3) intellectual ability, 4) socio-economic status, 5) work experience, and 6) level of job aspiration are related to attitudes toward the jobs under study. Data for this analysis were collected from a sample of Iowa high school juniors and seniors.

Development of Additional Instruments

This objective required the development of two instruments in addition to the attitude inventories. These are an instrument to assess the general level of job aspiration and a blank to collect information about the remaining factors to be analyzed.

Job aspiration level instrument

Job aspiration level was selected as one of the factors which might be associated with attitudes toward food service jobs; hence, an indication of the general level of aspiration was desired. Since a search of the literature failed to reveal an appropriate instrument, it was necessary to develop one. It was believed that asking a subject to choose among

jobs in the same occupational area but with different occupational status would indicate generally his level of job aspiration.

The North-Hatt Scale (8) and the Baudler and Paterson Social Status of Women's Occupations (1b) were used to identify jobs and their occupational status for the two sexes. A survey of the jobs listed in these two sources indicated a number of possible occupational areas, for example, farm-related occupations, office occupations, and music occupations. Occupational areas which did not have jobs that varied in occupational status or which had fewer than three jobs were eliminated. In each occupational area selected, three jobs were listed which had different occupational ranks. An effort was made to include jobs which provided as wide a range of occupational ranks in each area as possible. The status levels of the jobs in the different areas were not necessarily comparable, but were accepted as being indicative of a level of aspiration; that is, choosing the highest ranking job in each area would indicate a high level of aspiration even though the actual rank of these jobs were not the same. The form for females contains seven items; that for males, eight items. Copies of the two forms of the instrument, Which Job Would You Like?, are included in Appendix C.

Information blank

Information about the remaining factors to be investigated was gathered by means of a blank developed for this purpose. Sex was determined by color-keying the blank, those for females on yellow and those for males on green paper. The subject was directed to place an X in the blanks to indicate grade level, place of residence, and work experience. Five categories relative to place of residence were determined judgmentally by the investigator from the 1960 Iowa census data: farm; less than 1,000; 1,000 to 9,999; 10,000 to 50,000; and over 50,000 population. Two items of information were requested about work experience: whether the subject had ever had a job, and whether he had ever had a food service job.

Data concerning the factors of socio-economic status and intellectual ability were recorded on the blank by the teacher administering the research materials. Names were requested on the blank to facilitate this. Father's occupation was used as an indication of the socio-economic status of the subject. If the father was not the breadwinner in the family, the occupation of the breadwinner, stepfather, mother, or guardian was requested. These occupations were weighted according to the occupational status ranks on the North-Hatt Scale (8). For example, occupations which ranked between 30 and 39 were given a weight of 3; those which ranked between 40 and 49, a weight of 4. Since the Iowa Tests of Educational

Development (ITED) provide an appropriate measure of intellectual ability and are commonly administered to high school students in Iowa, the subject's score on this was used as the measure. The subject's ITED composite percentile score based on national norms was requested; if this was not available, raw scores were obtained and transformed by the investigator to percentile scores. One school did not administer the ITED to their students; hence for these students, composite scores of the STEP-SCAT tests were used. Since one school refused to provide data regarding father's occupation or the pupil's ITED scores, these subjects were not considered in the analysis of these two factors. A copy of the blank and the coding plan is included in Appendix D.

Collection of Data

The statistical consultant for the large project recommended that data be collected from a minimum of 400 subjects representing both male and female juniors and seniors in high schools with varying sizes of enrollments in all geographical areas of Iowa; hence, approximately 20 juniors and 20 seniors from each of 24 schools were selected as subjects for this investigation.

The 24 high schools were selected using a plan designed by the Iowa State University Statistical Laboratory. The total number of junior and senior pupils in Iowa high schools during the school year 1965-66 was obtained from the Iowa

Educational Directory (5) since the 1966-67 data were not available at the time the sample was drawn. The state was divided into four geographical areas, each having an approximately equal number of junior and senior pupils. To obtain a basis for stratification, high schools in each area were ranked according to the number of juniors and seniors in the school and the cumulative population was determined. Each area was stratified into three levels by selecting breaking points in the cumulative population which would provide approximately one-third of the population in each level or stratum. Two schools were selected systematically from each of the 12 strata in such a manner that the schools would vary in enrollment. For each stratum, the first school was determined by selecting a number from a table of random numbers. An interval half the size of the population of the stratum was added to this number to determine the second school. When a school was drawn whose population was too small to meet the requirement of approximately 20 juniors and 20 seniors, it was combined with the school that was nearest in size in the stratum to provide a sampling unit of two schools. The 24 elements drawn for the study included four sampling units giving a total of 28 schools.

A letter explaining the purpose of the project, general procedures for the selection of pupils and the administration of materials, and requesting permission to administer the

materials was sent to the principal or the guidance counselor in each school selected. A return post card indicating willingness to participate and the person to be responsible for the administration was also included. Copies of the letter and the post card are found in Appendix E. A second letter and post card were sent to those who did not reply to the first. Those who were unwilling to participate were replaced in the sample by a school similar in size from the same area and stratum. For those in which two schools were combined in a sampling unit, a new school was drawn only if both schools were unwilling to participate. When all replacements had been made, 24 schools remained in the sample. Five schools did not complete their administration of materials; the 19 participating schools are listed in Appendix F.

If the administrator or counselor agreed to participate, a packet of materials and a self-addressed stamped envelope were mailed to the designated person. This contained a cover letter explaining the project, directions to the teacher for selection of pupils and for administration of instruments as well as directions, instruments, and response sheets for the pupils. All materials were color-keyed for convenience; those for the teacher were printed on white paper, for boys on green paper, and for girls on yellow paper. Copies of the letter and the directions for teachers are found in Appendix G; pupil directions in Appendix H; and instruments and response

sheets in Appendices B, C, and D.

Since most high schools in Iowa have a home room system with relatively heterogeneous home room populations, it was decided to have the materials administered in them. Teachers were instructed to assign each junior and each senior home room a two-digit number, to select one junior and one senior home room using a table of random numbers, and administer the instruments to all pupils in these two rooms. It was believed that this method would provide at least 20 juniors and 20 seniors per school. Schools which did not have home room systems were requested to return a roster of all junior and senior pupils to the investigator. Twenty juniors and 20 seniors were systematically selected from these lists and returned to the teachers. Teachers were given the option of administering the research materials to the subjects in a group or individually.

The teacher was requested to return only the information blanks and the response sheets. Each set of responses was checked for completeness and, where necessary, was returned to the school for additional information. Most of the data were gathered during April and May, 1967; schools which were unable to administer the inventories in the spring did so during September, 1967.

Data were obtained from 786 pupils but the responses from 11 were not usable, leaving 775 subjects in the study, 381 males and 394 females.

Findings and Discussion

Interpretation of scores

In Likert scaling, the median of the scale is not necessarily the midpoint, or neutral point, of the scale; therefore, interpretations of attitude scores cannot be made independently of distribution of scores of some norm group. Since norm data are not available at the present time, attitude scores of the subjects in this sample cannot be interpreted as being either positive or negative.

In lieu of this interpretation, the ranges of scores, means, and standard deviations will be reported. Both the possible range of scores and the actual range of scores of the subjects are included. The former range was determined by multiplying the number of items in the scale by the lowest and highest weights given to the responses. For example, in the Attitude Toward Being a Waiter inventory, the number of items, 27, was multiplied by the lowest and highest weights, 1 and 5, to determine the possible range of scores, 27 to 135.

These data suggest that, for Iowa high school juniors and seniors, there is greater variation in attitudes toward the jobs of waiter and waitress than there is toward that of commercial cooking. Since both boys and girls responded to Attitude Toward Commercial Cooking, a t-test of the significance of the difference of means on this inventory indicated that boys' attitudes toward commercial cooking are significantly

different from those of girls. The difference was significant at the .01 level.

Table 4. Ranges of scores, means, and standard deviations for the inventories of Attitude Toward Being a Waiter, Attitude Toward Being a Waitress, and Attitude Toward Commercial Cooking

Inventory	Possible range	Actual range	Means	Standard deviation
Attitude Toward Being a Waiter	27-135	53-135	86.648	12.445
Attitude Toward Being a Waitress	25-125	34-106	70.152	12.034
Attitude Toward Commercial Cooking				
Males	23-113	56-83	69.588	4.323
Females	23-113	54-90	72.810	5.847

Correlations

After the responses were divided by sex, correlation coefficients were computed, and the t-test was applied to determine significance of the coefficients.

Grade level It was hypothesized that grade level is related to attitudes toward food service jobs. The coefficients for this factor are reported in Table 5. Although t-tests indicate that three of the four obtained coefficients are significant at the .05 level, the coefficients are too

low to provide practical meaning to this relationship. Therefore this hypothesis is rejected. Perhaps if more than the two grade levels, eleventh and twelfth, had been included in this study, the differences might have been greater.

Table 5. Coefficients of correlation for the factor of grade level

Inventory	Coefficients Male	Female
Attitude Toward Being a Waiter	0.105[a]	
Attitude Toward Being a Waitress		0.125[a]
Attitude Toward Commercial Cooking	-0.000	-0.111[a]

[a]Significant at the .05 level.

Place of residence The hypothesis that place of residence of the pupil is related to attitudes toward food service jobs was rejected. The coefficients obtained for the correlations are reported in Table 6. In Iowa pupil attitudes toward food service jobs do not seem to reflect a rural-urban differential; in so far as attitudes are concerned, recruiting programs for these jobs would be appropriate in schools and communities of all sizes.

Table 6. Coefficients of correlation for the factor of place of residence

Inventory	Coefficients Male	Female
Attitude Toward Being a Waiter	0.000	
Attitude Toward Being a Waitress		0.047
Attitude Toward Commercial Cooking	-0.031	-0.052

Intellectual ability The hypothesis that intellectual ability is associated with attitudes is supported in only one correlation, that of girls' Attitudes Toward Commercial Cooking. The coefficients for this factor are included in Table 7. This relationship, significant at the .01 level, is negative; that is, high scores on the attitude inventory had a slight tendency to be related to low scores on the intellectual ability measure. For the other three correlations, intellectual ability was not a factor in attitudes. This suggests that high ability as well as low ability pupils may consider employment in food service jobs, and that recruiting for food service employees consider students of all levels of ability.

Table 7. Coefficients of correlation for the factor of intellectual ability

Inventory	Coefficients Male	Female
Attitude Toward Being a Waiter	0.060	
Attitude Toward Being a Waitress		0.083
Attitude Toward Commercial Cooking	-0.077	-0.143[a]

[a]Significant at the .01 level.

Socio-economic status The hypothesized relationship of socio-economic status and attitudes toward food service jobs is not supported in any of the correlations. Coefficients are reported in Table 8. It appears that socio-economic status, as indicated by father's occupation, is not a significant factor in pupil attitudes toward these jobs.

Table 8. Coefficients of correlation for the factor of socio-economic status

Inventory	Coefficients Male	Female
Attitude Toward Being a Waiter	-0.005	
Attitude Toward Being a Waitress		-0.029
Attitude Toward Commercial Cooking	-0.075	-0.025

Work experience To test the hypothesis that work experience is associated with attitudes, two items of information were collected: whether the pupil had had any job experience and whether he had had food service experience. Correlations were computed for each experience separately and are reported in Table 9.

Table 9. Coefficients of correlation for the factor of work experience

Inventory	Coefficients: Job experience Males	Job experience Females	Food service experience Males	Food service experience Females
Attitude Toward Being a Waiter	-0.015		0.157[a]	
Attitude Toward Being a Waitress		0.056		0.033
Attitude Toward Commercial Cooking	0.050	0.033	0.046	-0.011

[a]Significant at the .01 level.

Only one coefficient is significant but low, that of food service experience for males and scores on Attitude Toward Being a Waiter. Previous work experience, whether in food service or in some other occupation, does not seem to be a factor in pupil's attitudes.

Job aspiration It was hypothesized that job aspiration is related to attitudes toward food service jobs. On the aspiration instrument, a high score, 3, indicates low aspiration and a low score, 1, high aspiration. Thus relationships between high aspiration and high scores on the inventories will appear in the table as negative coefficients; those between low aspiration and high attitude scores will appear as positive.

Three of the four coefficients reported in Table 10 are significant at the .01 level. However, since these coefficients are rather low, they must be interpreted with caution. There seems to be some slight tendency for pupils with high aspiration to view the jobs of waiter and waitress favorably, and for girls with high aspiration to view jobs as cooks unfavorably.

Table 10. Coefficients of correlation for the factor of level of job aspiration

Inventory	Coefficients Male	Female
Attitude Toward Being a Waiter	-0.145[a]	
Attitude Toward Being a Waitress		-0.248[a]
Attitude Toward Commercial Cooking	0.021	0.189[a]

[a]Significant at the .01 level.

These findings suggest that Iowa high school juniors and seniors do not differ greatly with respect to the factors selected for study.

In addition to correlation of the factors with scores on the attitude inventories, scores on the inventories were correlated with each other for both sexes. Coefficients for these correlations are reported in Table 11. For boys, a positive relationship, significant at the .01 level, was found between scores on Attitude Toward Being a Waiter and Attitude Toward Commercial Cooking. Boys who have positive attitudes toward being a waiter tend to have positive attitudes toward being a cook. For girls, however, the relationship is greater, also significant at the .01 level, but negative. Girls who have positive attitudes toward being a waitress tend to have negative attitudes toward being a cook.

Table 11. Coefficients of correlation for scores on the attitude inventories

Inventory	Coefficients Attitude Toward Commercial Cooking	
	Males	Females
Attitude Toward Being a Waiter	0.357[a]	
Attitude Toward Being a Waitress		-0.643[a]

[a]Significant at the .01 level.

Food service jobs are often considered as a "cluster" of occupations. This finding suggests that, for girls, these two jobs should be considered separately when recruiting procedures and training programs are being planned.

SUMMARY

Food service is an expanding industry in the United States. In spite of increased opportunities, the industry faces manpower problems in both attracting and retaining qualified personnel. At the present time the greatest need for employees appears to be in the jobs of waiter, waitress, and cook. Management personnel and educators in food service are concerned with reasons for the lack of interest in these jobs.

The purposes of this study were to: 1) develop attitude inventories which could be used to assess attitudes toward the food service jobs of waiter, waitress, and cook; and 2) ascertain the factors associated with the attitudes of Iowa high school juniors and seniors toward these jobs. It was hypothesized that grade in school, place of residence, intellectual ability, socio-economic status, work experience, and level of job aspiration would be related to these attitudes.

Three attitude inventories were developed: Attitude Toward Being a Waiter; Attitude Toward Being a Waitress; and Attitude Toward Commercial Cooking. Pools of items were collected by means of interviews, questionnaires, and a survey of attitude inventories with psychological objects other than food service jobs. Those items were selected which discriminated between high and low scorers after being administered to secondary school boys and girls and to women employed full-

time as waitresses and cooks. Men employed in these positions were unavailable in sufficient numbers for the study.

Two other instruments were developed, male and female forms of a job aspiration instrument, Which Job Would You Like?, and an information blank.

Subjects were selected from 19 high schools stratified by size and geographical area of Iowa. Usable data were obtained from 775 pupils, 381 males and 394 females.

The standard deviation of scores on each of the inventories indicated that, for Iowa high school juniors and seniors, there is greater variation in attitudes toward the jobs of waiter and of waitress than that of commercial cooking. In addition, a t-test of the significance of the difference of means indicated that boys' attitudes toward commercial cooking were significantly different, at the .01 level, from those of girls.

Correlation coefficients were computed between scores on the inventories and each of the selected factors, and the t-test applied to determine their significance. Although some coefficients were significant, they were generally too low to provide meaning to the relationship, and hence, the hypotheses were rejected. In general Iowa high school juniors and seniors tend to be rather homogeneous in terms of these attitudes. There was a slight tendency, however, for pupils with high aspiration to view favorably the jobs of waiter and waitress and for girls with high aspiration to view un-

favorably the job of commercial cooking.

In addition, scores on the inventories were correlated and found to be significant. Boys who had positive attitudes toward being a waiter tended to be positive toward being a cook. For girls, however, a negative relationship was found. This suggests that, for girls at least, the two food service jobs of waitress and cook should not be considered as a cluster of jobs but as individual occupations.

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APPENDIX A

Instruments for Collection of Pool of Statements

INTERVIEW SCHEDULE

Food Service Employees

Present Job_____

Other kinds of food service jobs held_____

_____

Other jobs held_____

1. Why did you take a job as a (waitress, cook, waiter)?

2. What do you like about this kind of job?

3. What don't you like about this kind of job?

4. How does your (husband, wife, parents, children) feel about your job?

5. Do you feel your job is important? Why?

6. Do others such as friends, neighbors, customers, seem to feel that this is an important job?

7. Do you feel special training should be given to persons planning to become waitresses, waiters, or cooks?

INTERVIEW SCHEDULE

Managers and Owners
Institution Management Staff Members

Present position_____

Other food service management positions held_____

_____

1. What attitudes contribute to successful performance on-the-job as

   Waiters:

   Waitresses:

   Cooks:

2. What attitudes interfere with successful performance on-the-job as

   Waiters:

   Waitresses:

   Cooks:

3. Describe the most successful employee you have ever supervised.

4. Describe the most unsuccessful employee you have ever supervised.

INTERVIEW SCHEDULE

Non-Food Service Employees

Present job_____

Other jobs held_____

1. Would you ever take a job as a waiter, waitress, or cook? Why or why not?

2. Would you like for your husband or wife to take a job as a waiter, waitress, or cook? Why or why not?

3. Would you like for your son or daughter to be a waiter, waitress, or cook? Why or why not?

4. Do you feel that jobs in food service are important?

5. Do you know anyone who is a waiter, waitress, or cook? How do they seem to feel about their job?

6. Do you feel special training should be given to persons planning to become waitresses, waiters, or cooks?

INTERVIEW SCHEDULE

Cosmetology Trainees

Previous jobs (full-time or part-time)_____

_____

1. Why did you choose this vocation?

2. Did you consider any other occupation, such as food service occupations?

3. Why or why not?

4. If you did take a food service job sometime, would you rather be a waitress or a cook? Why?

5. When you are a parent, would you let your son or daughter take a food service job?

6. Why or why not?

ATTITUDE QUESTIONNAIRE FOR MALES

Iowa State University, Ames, Iowa

We would like to know how young people feel about some different jobs. These jobs require different kinds of skills, abilities, interests and training. There are 16 items on this questionnaire. Each item consists of one pair of jobs and two incomplete sentences about those jobs.

From each pair of jobs listed, select the job you would like better than the other one, place it on the blank in the first sentence, and then complete the sentence by giving the reason why you would prefer this job over the other one. Place the remaining job in the blank in the second sentence and give the reason or reasons why you would not prefer this job.

Example: 1. Carpenter - Truck driver.

I would rather be a carpenter because I enjoy making things and working with my hands.

I would rather not be a truck driver because I would get tired of sitting for hours at a time.

Please respond to each item. You may list more than one reason for your choice.

1. Waiter - Taxi driver

   I would rather be a _____ because _____

   I would rather not be a _____ because _____

2. Busboy in a restaurant (clears tables, carries dishes to kitchen) - Janitor

   I would rather be a _____ because _____

   I would rather not be a _____ because _____

3. Bookkeeper - Insurance agent

I would rather be a (an) _____ because _____

_____

I would rather not be a (an) _____ because _____

_____

4. Truck driver - Cook in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

5. Construction worker - Waiter

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

6. Dishwasher - Garbage collector

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

7. Cook in a private club - Salesperson in a store

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

8. Porter in a hotel - Busboy in a cafeteria (clears tables, carries dishes to kitchen)

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

9. Waiter in a restaurant - Farmhand

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

10. Meat packer - Cook in a cafeteria

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

11. Building contractor - Public school teacher

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

12. Host in a private club - Bookkeeper

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

13. Baker's assistant - Waiter in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

14. Lawyer - Dentist

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

15. Filling station attendant - Cook in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

16. Host in a private club - Barber

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

ATTITUDE QUESTIONNAIRE FOR FEMALES

Iowa State University, Ames, Iowa

We would like to know how young people feel about some different jobs. These jobs require different kinds of skills, abilities, interests, and training. There are 16 items on this questionnaire. Each item consists of one pair of jobs and two complete sentences about those jobs.

From each pair of jobs listed, select the job you would like better than the other one, place it on the blank in the first sentence, and then complete the sentence by giving the reason why you would prefer this job over the other one. Place the remaining job in the blank in the second sentence and give the reason or reasons why you would not prefer this job.

Example: 1. Office receptionist - Nursery school teacher

I would rather be a nursery school teacher because I enjoy working with young children.

I would rather not be a (an) office receptionist because I would not like sitting at a desk all the time.

Please respond to each item. You may list more than one reason for your choices.

1. Waitress - Maid in a motel

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

2. Private housekeeper - Cook in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

3. Stenographer - Payroll clerk

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

4. Soda fountain clerk - Bus girl in a cafe (Clears tables, carries dishes to kitchen)

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

5. Baker - Cashier in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

6. Stock clerk in a clothing store - Waitress

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

7. Cook in a hospital - Telephone operator

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

8. Clothes presser in a laundry - Bus girl in a cafe (Clears tables, carries dishes to kitchen)

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

9. General office worker - Hostess in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

10. Cosmetologist - Cook in a college cafeteria

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

11. Baker's assistant - Waitress

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

12. Bank cashier - Buyer for a department store

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

13. Dress alterator - Cashier in a cafeteria

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

14. Salesperson in a store - Cook in a restaurant

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

15. Hostess in a restaurant - Seamstress

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

16. Teacher in a public school - Dietitian in a hospital

I would rather be a _____ because _____

_____

I would rather not be a _____ because _____

_____

APPENDIX B

Attitude Inventories

ATTITUDE TOWARD BEING A WAITER

On this page are a number of statements about being a waiter. On the response sheet you will see the letters SA A U D SD printed for each statement. Read each statement carefully and decide whether you strongly agree with it, agree with it, are undecided about it, disagree with it, or strongly disagree with it.

If you agree strongly with the statement, then circle (SA)
If you agree with the statement, then circle (A)
If you are undecided about the statement, then circle (U)
If you disagree with the statement, then circle (D)
If you disagree strongly with the statement, then circle (SD).

Circle only one answer for each statement. Do not skip any statements. Record all responses on the response sheet.

This is not a test and there are no right or wrong answers. Each response should tell how you feel about the statement.

1. As a waiter, I feel I would be doing something worthwhile.
2. I have always wanted to be a waiter.
3. Being a waiter would be drudgery.
4. Being a waiter requires less education than most occupations.
5. Being a waiter would be an interesting job.
6. Being a waiter is monotonous.
7. Waiters are skilled persons.
8. I would be willing to let my son be a waiter.
9. All waiters should be required to have special training.
10. I like to work with people.
11. This is a good job for young people who want to get ahead.
12. You need a strong back and a weak mind to be a waiter.
13. I could get along on a waiter's salary.
14. Being a waiter is a desirable job.
15. I wouldn't like working on holidays when everyone else is relaxing.
16. Anyone can be a waiter.
17. I would enjoy serving food to people.
18. A waiter gets ordered around by too many people.

19. A waiter gets to meet many interesting people.
20. Waiting tables isn't a man's job.
21. I wouldn't like a job which has broken work hours.
22. Table waiting is degrading work.
23. Jobs as waiters are good for someone who wants to get ahead.
24. Customers think they are better than waiters.
25. You can't be a man and a waiter too.
26. I would enjoy the variety of activity in being a waiter.
27. Being a good waiter is an art.

ATTITUDE TOWARD BEING A WAITRESS

On this page are a number of statements about being a waitress. On the response sheet you will see the letters SA A U D SD printed for each statement. Read each statement carefully and decide whether you strongly agree with it, agree with it, are undecided about it, disagree with it, or strongly disagree with it.

If you agree strongly with the statement, then circle (SA).
If you agree with the statement, then circle (A).
If you are undecided about the statement, then circle (U).
If you disagree with the statement, then circle (D).
If you disagree strongly with the statement, then circle (SD).

Circle only one response for each statement. Do not skip any statements. Record all responses on the response sheet.

This is not a test and there are no right or wrong answers. Each response should tell how you feel about the statement.

1. As a waitress, I feel I would be doing something worthwhile.
2. I have always wanted to be a waitress.
3. Waitress work is drudgery.
4. I wouldn't be a waitress under any circumstances.
5. Being a waitress would be an interesting job.
6. Being a waitress requires less education than most occupations.
7. Waitresses are skilled persons.
8. I would be willing to let my daughter be a waitress.
9. Waitress work is monotonous.
10. All waitresses should be required to have special training.
11. I like to work with people.
12. Waitress jobs are dead-end jobs.
13. This is a good job for young people who want to get ahead.
14. You need a strong back and a weak mind to be a waitress.
15. Being a waitress is a desirable job.
16. Anyone can be a waitress.
17. Waitress work is too hard.
18. Waitresses are public servants.

19. A waitress gets to meet many interesting people.
20. Waitresses don't have very good morals.
21. Table waiting is degrading work.
22. Waitresses are just as good as anybody else.
23. Waitress jobs are good for someone who wants to get ahead.
24. I would enjoy the variety of activity in being a waitress.
25. Being a waitress is an art.

ATTITUDE TOWARD COMMERCIAL COOKING

On this page are a number of statements about the occupation of commercial cooking. On the response sheet you will see the letters SA A U D SD printed for each statement. Read each statement carefully and decide whether you strongly agree with it, agree with it, are undecided about it, disagree with it, or strongly disagree with it.

If you agree strongly with the statement, then circle (SA).
If you agree with the statement, then circle (A).
If you are undecided about the statement, then circle (U).
If you disagree with the statement, then circle (D).
If you disagree strongly with the statement, then circle (SD).

Circle only one response for each statement. Do not skip any statements. Record all responses on the response sheet.

This is not a test and there are no right or wrong answers. Each response should tell how you feel about the statement.

1. As a cook, I feel I would be doing something worthwhile.
2. Cooking is drudgery.
3. I have always wanted to be a cook.
4. I wouldn't be a cook under any circumstances.
5. Cooking is monotonous work.
6. Cooking requires less education than most other occupations.
7. Cooks are skilled persons.
8. Cooks don't get to work in nice surroundings.
9. I would enjoy preparing food to please other people.
10. Being a cook would be an interesting job.
11. I wouldn't like working in a hot kitchen.
12. I would be willing to let my son or daughter be a cook.
13. A cook's pay isn't good enough to support a family.
14. Cooking would be a very desirable occupation.
15. You need a strong back and a weak mind to do this job.
16. Cooks don't get to meet many interesting people.
17. This is a good occupation for young people who want to get ahead.

18. A cook is the most important employee in the restaurant.
19. Cooking is too routine.
20. I would not like working on holidays when everyone else is relaxing.
21. Cooking is a satisfying job.
22. There is too much pressure on a cook to get things done on time.
23. Great skill is required to be a cook.

APPENDIX C

Aspiration Instruments

WHICH JOB WOULD YOU LIKE?

Form for Males

Each set of occupations listed below contains occupations selected from a broad occupational area. From each set of three jobs, place an X beside the one job you would most like to do. Please respond to each set of occupations even though you do not plan to enter that occupational area.

Example:
_____ Musician in a symphony
_____ Singer in a night club
_X_ Musician in a dance band

1. _____ a. Custodian in an office building
   _____ b. Hotel manager
   _____ c. School maintenance engineer

2. _____ a. State highway patrolman
   _____ b. County judge
   _____ c. Guard

3. _____ a. General contractor
   _____ b. Construction laborer
   _____ c. Construction engineer

4. _____ a. Dishwasher in a restaurant
   _____ b. Cook in a restaurant
   _____ c. Manager of a restaurant

5. _____ a. Stockhandler
   _____ b. Farm owner-operator
   _____ c. Farm tenant (rents land)

6. _____ a. Auto repairman
   _____ b. Service station attendant (not a manager or lessee)
   _____ c. Automobile dealer

7. _____ a. Salesperson in a store
   _____ b. Manager of a large department store
   _____ c. Owner of a small store

8. _____ a. Banker (executive officer)
   _____ b. Bank examiner
   _____ c. Bank cashier

WHICH JOB WOULD YOU LIKE?

Form for Females

Each set of occupations listed below contains occupations selected from a broad occupational area. From each set of three jobs, place an X beside the one job you would most like to do. Please respond to each set of occupations even though you do not plan to enter that occupational area.

Example:
_____ Musician in a symphony
_____ Singer in a night club
_X_ Musician in a dance band

1. _____ a. Dress designer
_____ b. Laundry worker (in a commercial laundry)
_____ c. Dressmaker (in own home)

2. _____ a. Waitress in a restaurant
_____ b. Dishwasher in a restaurant
_____ c. Dietitian

3. _____ a. Alterations person in a clothing store (changes hems, etc.)
_____ b. Salesperson in a department store
_____ c. Buyer for a department in a large store

4. _____ a. Certified Public Accountant
_____ b. Billing clerk for a large company (prepare statements for customers)
_____ c. Bank cashier

5. _____ a. Assistant in a nursery school
_____ b. Teacher in a college or university
_____ c. Teacher in a public school (elementary school)

6. _____ a. Steno-typist in a large office
_____ b. Personnel manager for a large company (interviews people for jobs)
_____ c. Telephone switchboard operator for a large business or store

7. _____ a. Art teacher in a high school
_____ b. Florists helper (help arrange flowers, make corsages, etc.)
_____ c. Display manager for a department store (in charge of setting up displays in store windows, coordinates store decorations)

APPENDIX D

Response Sheets, Keys for Scoring, and Information Blank

RESPONSE SHEET AND KEY FOR SCORING

Form for Males

Attitude Toward Being a Waiter						Attitude Toward Commercial Cooking						Which Job Would You Like?		
+ 1.	SA	A	U	D	SD	+ 1.	SA	A	U	D	SD	1.	a.	3
+ 2.	SA	A	U	D	SD	- 2.	SA	A	U	D	SD		b.	1
- 3.	SA	A	U	D	SD	+ 3.	SA	A	U	D	SD		c.	2
- 4.	SA	A	U	D	SD	- 4.	SA	A	U	D	SD			
+ 5.	SA	A	U	D	SD	- 5.	SA	A	U	D	SD	2.	a.	2
- 6.	SA	A	U	D	SD	- 6.	SA	A	U	D	SD		b.	1
+ 7.	SA	A	U	D	SD	+ 7.	SA	A	U	D	SD		c.	3
+ 8.	SA	A	U	D	SD	- 8.	SA	A	U	D	SD	3.	a.	2
+ 9.	SA	A	U	D	SD	+ 9.	SA	A	U	D	SD		b.	3
+10.	SA	A	U	D	SD	+10.	SA	A	U	D	SD		c.	1
+11.	SA	A	U	D	SD	-11.	SA	A	U	D	SD			
-12.	SA	A	U	D	SD	+12.	SA	A	U	D	SD	4.	a.	3
+13.	SA	A	U	D	SD	-13.	SA	A	U	D	SD		b.	2
+14.	SA	A	U	D	SD	+14.	SA	A	U	D	SD		c.	1

Continued

Form for Males

Attitude Toward Being a Waiter						Attitude Toward Commercial Cooking						Which Job Would You Like?		
-15.	SA	A	U	D	SD	-15.	SA	A	U	D	SD	5.	a.	3
-16.	SA	A	U	D	SD	-16.	SA	A	U	D	SD		b.	1
+17.	SA	A	U	D	SD	+17.	SA	A	U	D	SD		c.	2
-18.	SA	A	U	D	SD	+18.	SA	A	U	D	SD	6.	a.	2
+19.	SA	A	U	D	SD	-19.	SA	A	U	D	SD		b.	3
-20.	SA	A	U	D	SD	-20.	SA	A	U	D	SD		c.	1
-21.	SA	A	U	D	SD	+21.	SA	A	U	D	SD			
-22.	SA	A	U	D	SD	-22.	SA	A	U	D	SD	7.	a.	3
+23.	SA	A	U	D	SD	+23.	SA	A	U	D	SD		b.	1
-24.	SA	A	U	D	SD								c.	2
-25.	SA	A	U	D	SD							8.	a.	1
+26.	SA	A	U	D	SD								b.	2
+27.	SA	A	U	D	SD								c.	3

RESPONSE SHEET AND KEY FOR SCORING

Form for Females

Attitude Toward Being a Waitress						Attitude Toward Commercial Cooking						Which Job Would You Like?		
+ 1.	SA	A	U	D	SD	+ 1.	SA	A	U	D	SD	1.	a.	1
+ 2.	SA	A	U	D	SD	- 2.	SA	A	U	D	SD		b.	3
- 3.	SA	A	U	D	SD	+ 3.	SA	A	U	D	SD		c.	2
- 4.	SA	A	U	D	SD	- 4.	SA	A	U	D	SD			
+ 5.	SA	A	U	D	SD	- 5.	SA	A	U	D	SD	2.	a.	2
- 6.	SA	A	U	D	SD	- 6.	SA	A	U	D	SD		b.	3
+ 7.	SA	A	U	D	SD	+ 7.	SA	A	U	D	SD		c.	1
+ 8.	SA	A	U	D	SD	- 8.	SA	A	U	D	SD	3.	a.	3
- 9.	SA	A	U	D	SD	+ 9.	SA	A	U	D	SD		b.	2
+10.	SA	A	U	D	SD	+10.	SA	A	U	D	SD		c.	1
+11.	SA	A	U	D	SD	-11.	SA	A	U	D	SD			
-12.	SA	A	U	D	SD	+12.	SA	A	U	D	SD	4.	a.	1
+13.	SA	A	U	D	SD	-13.	SA	A	U	D	SD		b.	3
-14.	SA	A	U	D	SD	+14.	SA	A	U	D	SD		c.	2

Continued

Form for Females

Attitude Toward Being a Waitress						Attitude Toward Commercial Cooking						Which Job Would You Like?		
+15.	SA	A	U	D	SD	-15.	SA	A	U	D	SD	5.	a.	3
-16.	SA	A	U	D	SD	-16.	SA	A	U	D	SD		b.	1
-17.	SA	A	U	D	SD	+17.	SA	A	U	D	SD		c.	2
-18.	SA	A	U	D	SD	+18.	SA	A	U	D	SD			
+19.	SA	A	U	D	SD	-19.	SA	A	U	D	SD	6.	a.	2
-20.	SA	A	U	D	SD	-20.	SA	A	U	D	SD		b.	1
-21.	SA	A	U	D	SD	+21.	SA	A	U	D	SD		c.	3
+22.	SA	A	U	D	SD	-22.	SA	A	U	D	SD	7.	a.	1
+23.	SA	A	U	D	SD	+23.	SA	A	U	D	SD		b.	3
+24.	SA	A	U	D	SD								c.	2
+25.	SA	A	U	D	SD									

INFORMATION SHEET

Name _____

Please respond to the following questions by placing an X on the correct line.

1. What grade are you in?

__0__ 11th grade

__1__ 12th grade

2. Where do you live?

__0__ On a farm

__1__ In a community of less than 1,000 population

__2__ In a community of 1,000-9,999 population

__3__ In a community of 10,000-50,000 population

__4__ In a community of over 50,000 population

3. Have you ever had a part-time or full-time job?

__0__ Yes

__1__ No

If the answer to the question above is Yes, did you ever have a part-time or a full-time job in food service (jobs such as waiter, waitress, cook, busboy, carhop, etc.)?

__1__ Yes

__2__ No

(ITED information was coded 1 to 9; father's occupation information was coded 3 to 9.)

APPENDIX E

Letter to Schools and Return Post Card

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Ames, Iowa 50010

DEPARTMENT OF HOME ECONOMICS EDUCATION

_____,
(Principal or Counselor)
_____ High School
_____, Iowa

Dear _____:

The Home Economics Education and Institution Management Departments of Iowa State University are conducting research on Bases for Vocational Education for Food Service Industry Employees, a project funded by the U.S. Office of Education. This research includes the development of inventories measuring attitudes toward certain food service jobs. Later these inventories will be available for guidance purposes in high schools and in area vocational training programs.

As part of the development of these instruments, we need to have them administered to 20 eleventh and twelfth grade pupils in 24 high schools. Your school was drawn in the sample of Iowa schools, so we hope that you can participate.

The inventories can be completed in approximately 50 minutes. If you would be willing to help, please check Yes on the enclosed post card and return it to us. Materials for administration and instructions for the selection of pupils will be mailed to you.

Thank you for considering our request for assistance.

Sincerely yours,

Alberta D. Hill
Head, Department of
Home Economics Education

Dear Dr. Hill:

_____ Yes, we will help in this research project.

Please send materials and instructions to:

Name_____

School_____

Address_____

_____ No, we will not be able to participate.

_____

(Signed)

APPENDIX F

List of Participating Schools

List of Iowa High Schools Participating in the Study

Ames Community Senior High School, Ames

Cedar Falls Community High School, Cedar Falls

Centerville Senior High School, Centerville

Central Clinton High School, DeWitt

Central High School, Davenport

Dubuque Community Senior High School, Dubuque

Hinton High School, Hinton

Klemme Senior High School, Klemme

LDF Senior High School, Le Grand

Lenihan High School, Marshalltown

Logan-Magnolin High School, Logan

Marshalltown High School, Marshalltown

Meservy-Thornton Senior High School, Thornton

Oskaloosa Senior High School, Oskaloosa

Ottumwa Senior High School, Ottumwa

Riverside High School, Sioux City

Solon Senior High School, Solon

Starmont Community High School, Strawberry Point

Waverly-Shellrock Community Senior High School, Waverly

APPENDIX G

Cover Letter and Directions for Teachers

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Ames, Iowa 50010

DEPARTMENT OF HOME ECONOMICS EDUCATION

April 17, 1967

_____
_____ High School
_____, Iowa

Dear _____:

Thank you for agreeing to help with our research project, Bases for Vocational Education for Food Service Industry Employees. We appreciate the positive response we have received from Iowa high school counselors and administrators.

The materials to be administered to your pupils and the directions for their administration are enclosed with this letter. We hope these materials will be self-explanatory. However, if questions do arise, please call Mrs. Margaret Arcus, the research assistant for this project, at 515-294-4384 for assistance.

We would appreciate having these materials returned to us at the earliest possible date. Thank you for your cooperation.

Sincerely yours,

Alberta D. Hill
Head, Department of
Home Economics Education

ADH:ckc

Enclosure

DIRECTIONS FOR ADMINISTRATION OF RESEARCH MATERIALS

SELECTION PROCEDURE

The enclosed research materials are to be administered to the pupils in one junior home room and one senior home room in your high school. These two home rooms are to be selected by the procedure indicated below. In order to insure a random sample of home rooms, please follow this procedure exactly. Do not use any other selection method (such as selecting the home room with the highest number of pupils or the home room that is first on the list.)

(NOTE: If your high school does not have home rooms, please send us an alphabetical listing of all juniors and all seniors in your school. We will make the selection of pupils and return the information to you.)

PROCEDURE

1. List all junior home rooms by number in ascending order. Give each home room a two-digit identification number.

Example:	Home Room Number	Identification No.
	Home Room 115	01
	Home Room 137	02
	Home Room 158	03
	..	..
	Home Room 248	10

Note: If home rooms are identified by some means other than numbers (such as letters), please list them alphabetically and then give them identification numbers.

2. List all senior home rooms, following the same procedure as that for junior home rooms.

3. To select the home room from the junior home room list which will respond to the materials, use the procedure described below:

a. Use the Table of Random Numbers attached to this sheet. Make a random start by closing your eyes and placing the point of a pencil on this table.
b. If the point of the pencil is not directly on any digit, move the point in any direction to the nearest digit.
c. Since each home room has been identified by a two-digit number, it is necessary to work with pairs of digits. Take the digit found by pointing the pencil and the next digit to the right to make a two-digit number. For example, in the series 52026, suppose the pencil pointed to 0. The next number to the right is 2, so the two-digit number is 02.
d. This two-digit number identifies the home room which will be asked to respond to the research materials.
e. If the two-digit number selected is greater than any of the numbers assigned to the home rooms on the list, take the next two numbers to the right. Continue this procedure, always working in pairs of digits, until you find a two-digit number which corresponds to any identification number on your list. (If this procedure brings you to the end of a row of numbers, move to the beginning of the next row and continue working in pairs of digits.)

4. Follow this same procedure with the senior home room list, making a new random start as in 3-a.

5. When the two home rooms have been selected, prepare for the administration of the materials as directed below.

ADMINISTRATION PROCEDURE

Allow approximately 50 minutes for the administration of these materials. Many pupils may be able to finish in less time. These materials may be administered to the pupils as a group or to pupils individually.

Hand out the sets of materials to the pupils. For your convenience, the sets of materials for boys are printed on green paper and the sets for girls are printed on yellow paper.

Go over the directions with the pupils. The key points to stress are:

1) since this is not a test, there are no right or wrong answers. Pupils should respond to each item on the basis of how he feels about it.
2) all pupils are to respond to all items. Pupils may ask questions about the meaning of words if they do not understand an item.
3) all responses are to be recorded on the response sheet provided.
4) the information requested of each pupil is necessary for research purposes only.

After they have finished, ask pupils to check their response sheets again to see that nothing has been omitted. It is essential that pupils respond to all items.

ADDITIONAL INFORMATION

Before returning the response sheets, please include two items of information about the pupils on the bottom of his information sheet. The items of information requested are:

1. ITED percentile score (percentile based on national norms). If you do not have the national percentile score, then record the raw score and write RAW SCORE beside it.

2. Father's occupation, as specifically as possible ("farm owner-operator" or "farm tenant" rather than "farmer"). If the father is not the bread-winner in the family, please indicate who is (mother, guardian, stepfather, etc.) and give his occupation.

This additional information is requested for use in the analysis of the pupil responses.

When the response sheets have been completed by the pupils and the additional information has been added, return the response sheets only in the enclosed self-addressed envelope. All other research materials may be discarded. Please return the response sheets as soon as possible.

If there are any questions or if any problems arise, please call Mrs. Margaret Arcus, research assistant on this project, at 515-294-4384 for assistance.

A copy of the final results of this project will be mailed to you if you request this information.

APPENDIX H

Directions to Pupils

DIRECTIONS TO PUPILS

WE NEED YOUR HELP!

The College of Home Economics of Iowa State University is conducting a research project on education for wage-earning occupations and we would like to know how Iowa high school pupils feel about some of these jobs.

The materials included here are not a test. There are no right or wrong answers to any of the questions. The first two parts ask how you feel about the job identified in the title. The third part asks for your preferences among the specific jobs listed. Specific directions are included with the items in each part.

Please respond to every item in each part. Record all of your responses on the response sheet provided. Check over your responses after you have finished to be sure there have been no omissions.

We are also requesting some information about you. Please fill in the information requested on the back of the response sheet. This information will be confidential and used for research purposes only.

Thank you for your assistance. We appreciate the contribution you are making to our research effort.